

Mapping Subscribers to a Managing SAE

A NIC collects information about the state of the network and can provide mapping from a specified type of network data, known as a *key*, to another type of network data, known as a *value*. Applications can use a NIC proxy to submit a key to a NIC host. The NIC host obtains a corresponding value from other components within NIC and returns it through the NIC proxy to the application. A typical use of a NIC is for a residential portal application to submit a subscriber's IP address and for the NIC to return the interoperable object reference (IOR) of the SAE managing that subscriber.

NIC Proxies and NIC Locators

Typically, an application supports one NIC proxy for each type of data request. A NIC proxy caches resolution results for a period of time so that it can resolve future requests without consulting the NIC host, thereby decreasing traffic between the NIC proxy and the NIC host. Applications that use NIC proxies communicate with the proxy to delete any invalid cache entries. Caching lets you optimize resolution performance for your network configuration and system resources.

You configure a NIC proxy when you configure that application. SRC applications such as the SRC-VTA and Dynamic Service Activator contain NIC proxies. If you are writing an external application that will interact with a NIC, you must include NIC proxies in the application.

A NIC locator provides the same functionality as a NIC proxy; however, it runs as part of the NIC host. A NIC locator uses the NIC access interface module, a simple CORBA interface, to enable non-Java applications to interact with NIC. A NIC locator does not cache information.

For information about the NIC access interface module, see the API documentation on the Juniper Networks Web site at <http://www.juniper.net/techpubs/software/management/src/api-index.html>.

For more information about NIC proxies and NIC locators, see Overview of NIC Proxy Configuration.

NIC Hosts

NIC hosts collect and store SRC information, and respond to requests from NIC proxies. The components in a NIC host that manage this process are:

- NIC agents—Collect data from SRC components, publish data, and make data available to NIC resolvers
- NIC resolvers—Process resolution requests

NIC Agents

NIC agents collect information about the state of the network from many data sources on the network. Table 1 on page 2 describes the types of agents supplied with NIC.

Table 1: Types of NIC Agents

Type of Agent	Type of Information the Agent Makes Available
Consolidator agent	Summary information received from other agents.
Directory agent	Specified directory entries and changes to directory entries.
Properties agent	Information from a specified list of property file. Typically, you do not configure properties agents.
SAE client agent	SAEs managing a subscriber at resolution time.
SAE plug-in agent	Subscriber information and interface information for SAE-managed subscribers and interfaces.
XML agent	Information from a specified XML document. Typically, you do not configure XML agents.

NIC Resolvers

NIC resolvers manage information to resolve requests by:

- Receiving and storing information about the state of the network from components within NIC and other NIC resolvers
- Requesting information from NIC agents and other NIC resolvers
- Receiving requests from the NIC proxies or other NIC resolvers
- Processing requests and sending responses to the requesters